CHAPTER 22

ORTHOPEDICS

STANDARD OPERATING PROCEDURES

500 BED FLEET HOSPITAL

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500 BED FLEET HOSPITAL

ORTHOPEDICS DEPARTMENT

STANDARD OPERATING PROCEDURES

A. **MISSION:** Provide orthopedic and podiatry services in support of combat related abnormalities and injuries.

B. **FUNCTIONS:**

1. Evaluate and diagnose orthopedic disorders in patients.

2. Perform orthopedic surgical procedures.

3. Provide podiatric medical and surgical evaluation and treatment.

4. Consult with medical officers of other clinical services concerning orthopedic/podiatric problems.

C. **PHYSICAL DESCRIPTION:**

1. Location within complex:

2. Sheltering.

Type:	Temper Tents.
Quantity:	Three - four sections.

3. Material.

IOL: 0014

D. **SPECIAL CONSIDERATIONS:**

1. The Orthopedic Surgeon must be prepared to respond to any major orthopedic injury within the hospital to render immediate consultation and treatment.

2. Because of his special training in podiatric surgery, the Podiatrist can assist the basic surgical specialties of general surgery, neurosurgery, and orthopedic surgery as needed.

3. Minor podiatric surgical procedures may be performed in the Specialty Treatment Unit. The main O.R. should be reserved for appropriate major surgical cases.

4. The nature of orthopedic and podiatric surgical cases require that a portable x-ray capability be available in surgical spaces.

5. There are no nursing wards specifically designated for orthopedic

patients. The CO may designate an orthopedic ward if workload so indicates a need.

E. **WORKLOAD:**

1. Average daily admissions.

(a) Steady state = 80 admissions/day; 54 surgical, 26 medical.

(b) Peak state = 120 admissions/day; 80 surgical, 40 medical.

2. Over a 30 day period, approximately 28 percent of all admissions will have a primary orthopedic diagnosis and another 9 percent, a multiple organ diagnosis requiring orthopedic care. Therefore, it is anticipated that 37 percent of all admissions will require orthopedic care.

3. Anticipated orthopedic diagnoses seen over a 30-day period include:

DIAGNOSIS #	NAME
26	FX - Spine, closed w/o cord damage; stable lesion.
32	Wound, upper arm, open, w/FX and nerve injury moderate - arm salvageable
34	Strains and sprains, sacroiliac region - moderate - ambulatory
42	Wound, shoulder girdle, open, w/bony injury severe joint involvement.
48	Wound, upper arm, open, w/FX and nerve injury moderate -arm salvageable no vascular damage.
49	FX - Radius and ulna, closed, severe shafts of bones
50	FX - Radius and ulna, closed, moderate Colles FX.
54	Wound - Forearm, open, lacerated, penetrating, w/FX and w/nerve and vascular injury moderate - forearm salvageable.
55	FX - Hand and/or fingers, closed - severe, closed reduction.
56	FX - Hand and/or fingers, open - moderate, open reduction.

59	Wound - Hand, fingers, open, lacerated, contused, crushed w/FX - severe FX of carpals and metacarpal.
60	Wound - Hand, fingers, open, lacerated, contused, crushed w/FX of phalangals only moderate.
62	Crush injury upper extremity - moderate, salvageable.
66	Dislocation/FX elbow, closed, acute moderate, dislocation w/o FX.

DIAGNOSIS #	NAME
67	Dislocation - Hand, wrist, fingers, closed, acute severe.
69	Amputation - Hand, traumatic, complete - severe.
112	FX - pelvis, closed w/associated soft tissue damage - severe displaced FX with organ damage.
120	FX - femur, closed, shaft severe - all cases.
124	Wound - thigh, open, lacerated, penetrating, perforating w/FX and nerve and vascular damage.
127	FX - tibia and fibula shaft, closed - severe.
130	Wound - lower leg, open, lacerated, penetrating, perforating w/FX and nerve and vascular damage severe - limb not salvageable.
131	Wound - lower leg, open, lacerated, operating, perforating w/FX and nerve and vascular damage severe limb salvageable.
132	FX - ankle, foot, closed severe - displaced, requires reduction.

135	Wound - ankle, foot, toes, open, lacerated, contused w/o FX - moderate - not requiring major debridement.
136	Wound - ankle, foot, toes, open, penetrating, perforating, w/FX and nerve and vascular damage - severe - not salvageable.
137	Wound - ankle, foot, toes, open, penetrating, perforating w/FX and nerve and vascular damage - moderate - limb(s) salvagable.
140	Dislocation - hip, traumatic, complete - severe - all cases.
146	Amputation - above knee, traumatic, complete - severe - requiring hip disarticulation.

DIAGNOSIS #	NAME
147	Amputation - above knee, traumatic, complete - moderate - requiring above knee amputation.
148	Sprain - ankle, closed, acute - severe - complete ligament rupture.
187	Trench foot - immersion foot severe - vesicle formation
188	Trench foot - immersion foot moderate - vesicle formation.
214	Ingrown toenails - severe - bilateral feet.

F. **ORGANIZATION:**

1. Responsibility. The Head, Orthopedics Department, who reports to the Director, Surgical Services, is assigned overall management responsibility. The department is divided into two division, Orthopedic Surgery and Podiatric Medicine and Surgery.

2. Organizational chart.

DIRECTOR, SURGICAL SERVICES

HEAD, ORTHOPEDICS DEPARTMENT

ORTHOPEDIC SURGERY (5)

PODIATRIC MEDICINE AND SURGERY

SENIOR CAST ROOM TECH

CAST ROOM TECH (6)

HOSPITAL CORPSMAN (2)

Direct Relationship

Indirect relationship

3. Staffing.

(a) Criteria:

(1) One Orthopedic Surgeon, cast room tech, and hospital corpsman is assigned each watch to Specialty Treatment Unit.

(2) Podiatrist is assigned permanently to the AM watch and is on call for night watch.

(b) Staffing pattern: Two 12 hour watches

Personnel	A.M. Watch	Night Watch	Total Assigned
Orthopedic Surgeon	4	2	6
Podiatrist	1	on call	1
Cast Room Tech	3	3	6
Hospital Corpsman	1	1	2

4. Assignments by Billet Sequence Number: See TAB A, page 9.

5. Watch Bill: See TAB B, page 10.

6. Special Watches: N/A

G. **TASKS**:

Task		Method
1. MAINTAIN READINESS	1.1	Check all orthopedic/podiatric instrumentation and appliances in Specialty Treatment Unit, Minor Surgery Area, and main OR, daily.
	1.2	Ensure that portable x-ray capability is available daily.
	1.3	Check daily that minor orthopedic surgical sets are available in the Casualty Receiving area.
		Minor suture sets (4).
		Minor suture removal sets (4).
	1.4	Ensure daily that supplies of casting material, splints and crutches are available in the Cast Room Area.
	1.4.A	Plaster of paris bandages. 6" rolls 30 boxes 12/box 4" rolls 40 boxes 12/box 15" rolls 10 boxes 12/box
	1.4.B	Webril cotton padding. 3" rolls 40 boxes g/box
		*NOTE: May divide total by 30 to obtain daily usage rate.
2. RECEIVE PATIENTS	2.1	Accept orthopedic patients from Triage/Casualty Receiving as referred.
	2.2	Examine and establish primary diagnosis.
	2.3	Establish treatment plan/program as appropriate for diagnosis and ensure that orders are recorded by Orthopedist or Podiatrist.

	2.4	Conduct daily ward rounds to all orthopedic patients.
	2.5	Ensure that established orders are being carried out by nursing/hospital corps personnel.
3. COORDINATE ORTHOPEDIC SURGERY	3.1	The Head, Orthopedics Department will:
	3.1.A	Coordinate all surgical procedures with the Minor OR and Main OR.
	3.1.B	Prepare a daily OR schedule.
	3.1.C	Distribute the schedule to the Minor OR, Main OR, and Anesthesia department.
4. PREPARE FOR SURGICAL PROCEDURES	4.1	The Orthopedic Tech will:
	4.1.A	Clean and set up the orthopedic operating apparatus and treatment space daily or as necessary.
	4.1.B	Prepare appropriate germicidal (cold sterilization) solutions IAW TAB C-6.
	4.1.C	Ensure that portable x-ray capability is available as required by specific cases scheduled/in progress.
	4.1.D	Remove used exam instruments, scrub with germicidal solution, and rinse.
	4.1.E	Dispose of trash and waste material, including casting material, in double plastic bags.
	4.1.F	Disengage all needles and scrape blades from handles and place in tray IAW, TAB C-4.

		4.1.G	Dispose of liquid medical waste, (suction machine) IAW TAB C-5.
		4.1.H	Roll linens in cocoon fashion and double bag in a fabric laundry bag.
		4.1.I	Damp dust treatment space with germicidal solution daily, ensuring thorough removal of all plaster dust.
5.	PROVIDE ORTHOPEDIC/ PODIATRIC SURGERY	5.1	Perform orthopedic/podiatric surgery IAW established standards of combat casualty care and in concert with tasks and procedures contained in Chapter 19, Operating Room.
6.	MAINTAIN MATERIEL READINESS	6.1	Cast Room Technician will:
		6.1.A	Perform operator maintenance on orthopedic operating apparatus, equipment, and appliances as required by operator manuals.
		6.1.B	Keep inventory of orthopedic treatment area supplies and linens, and restock as necessary.
		6.1.C	Keep inventory and restock the following sets for use in the surgical and treatment area: Minor laceration suture set (2)
		6.1.D	Return outdated drugs to Pharmacy for disposal.
		6.1.E	Obtain maintenance and repair of medical and non-medical equipment.
7.	PERFORM LEADERSHIP TASKS	7.1	Provide training and supervision to assist assigned personnel to advance their clinical and administrative abilities.

	7.2	Maintain continuing liaison with x-ray staff to ensure adequate support availability.
8. PROVIDE CONTINUING EDUCATION	8.1	Provide orientation to the Orthopedic Department.
	8.2	Evaluate staff skills prior to assigning more complex duties.
	8.3	Cross-train personnel in all specialty and indirect care areas.
	8.4	Provide senior personnel with experience in administration, clinical teaching, and supervision.
	8.5	Conduct classes on special procedures, orthopedic appliances, casting techniques, etc, as required.
9. PROVIDE SUPERVISION OF PERSONNEL	9.1	Provide performance counselling to all personnel on a continuing basis.

H. **STANDARD OPERATING PROCEDURES:** See TAB C, page 11.

I. **CLINICAL POLICIES/GUIDELINES:** See TAB D, page 50.

J. **STANDARDS AND JOB DESCRIPTIONS:** See TAB E, page 55.

K. **DOCUMENTATION:**

1. References See TAB F, page 67.

2. Forms See TAB G, page 68.

TAB A

ASSIGNMENT BY BILLET SEQUENCE CODE

Department: Orthopedics

Billet Number	Title	Designator/ Spec. Code	Rank/ Rate
1. Medical Corps.			
53029	Head, Orthopedics Dept	2100/0244	O-6
53049	Orthopedic Surgeon	2100/0244	O-5
53051	Orthopedic Surgeon	2100/0244	O-5
53053	Orthopedic Surgeon	2100/0244	O-5
53069	Orthopedic Surgeon	2100/0244	O-4
53071	Orthopedic Surgeon	2100/0244	O-4
2. Medical Service Corps.			
53089	Podiatrist	2300/0892	O-3
3. Hospital Corpsman.			
53019	Senior Cast Rm Tech	8489	E-5
53021	Cast Room Technician	8489	E-5
53039	Cast Room Technician	8489	E-4
53041	Cast Room Technician	8489	E-4
53043	Cast Room Technician	8489	E-4
53045	Cast Room Technician	8489	E-4
53059	Cast Room Technician	8489	E-3
36061	Hospital Corpsman	0000	E-3
36063	Hospital Corpsman	0000	E-3

ORTHOPEDIC DEPARTMENT

TAB B

SAMPLE WATCH BILL FOR ORTHOPEDIC DEPARTMENT

Section	M	T	W	T	F	S	S	M	T	W	T	F	S	S	M	T	W	T	F	S	S
Medical Corps.																					
53029	A	A	A	A	A	A	E*	A	A	A	A	A	E*	A	A	A	A	A	A	A	E
53049	A	A	A	A	A	E*	A	A	A	A	A	A	A	E*	A	A	A	A	A	E	A
53051	P	P	P	P	P	E	P	P	P	P	P	P	P	E	P	P	P	P	P	E	P
53053	A	A	A	A	A	A	E	A	A	A	A	A	A	E	A	A	A	A	A	A	E
53069	A	A	A	A	A	E	A	A	A	A	A	A	E	A	A	A	A	A	A	E	A
53071	P	P	P	P	P	P	E	P	P	P	P	P	P	E	P	P	P	P	P	P	E
Podiatrist.																					
53089	P	P	P	P	P	P	E	P	P	P	P	P	E	P	P	P	P	P	P	P	E
Hospital Corpsman.																					
53019	A	D	E	A	A	A	A	A	A	D	E	A	A	A	A	A	A	D	E	A	A
53021	A	A	A	A	E	D	A	A	A	A	A	A	E	D	N	N	N	N	N	N	E
53039	N	N	N	N	D	E	N	N	N	N	N	N	D	E	A	A	A	A	A	A	D
53041	P	P	P	P	E	D	P	P	P	P	P	E	D	P	P	P	P	P	E	D	P
53043	A	A	D	E	A	A	A	A	A	A	D	E	P	P	P	P	P	P	D	E	A
53045	P	P	P	D	E	P	P	P	P	P	P	D	E	A	A	A	A	A	A	D	E
53059	A	A	A	A	A	D	E	P	P	P	P	P	D	E	A	A	A	A	A	D	E
36061	A	E	A	D	A	A	A	A	A	E	A	D	A	A	A	A	A	E	A	D	N
36063	N	D	N	E	N	N	N	N	N	N	N	E	N	N	N	N	N	N	N	E	A

KEY:

A = (0700 - 1900) AM watch

P = (1900 - 0700) Night watch

E = Excused

D = Duty

* = On call on night watch

1 = First call to OR

2 = Second call to OR

3 = Third call to OR

TAB C

STANDARD OPERATING PROCEDURES

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TAB C-1

AIR SPLINT

A. **PURPOSE:** To immobilize the extremity to prevent further injury and to control pain.

B. **DEFINITION:** Splint made of plastic that is inflated.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

Air splint.

D. **CRITERIA:**

1. Assessments of distal pulses, skin color, and temperature will be done prior to and during splinting.

2. Splints will extend one joint above and below the fracture site if possible.

3. Air splints will be inflated to allow a finger width of space between the extremity and the splint.

4. Two persons will apply splints.

E. **STEPS:**

1. Assess distal pulses, skin color, and temperature prior to applying the splint.

2. Select appropriate size and type of air splint.

3. Dress open wounds with sterile dressings.

4. Remove all clothing or jewelry on extremity.

5. Apply the splint:

(a) Use splint that is unzipped and deflated.

(b) Have assistant hold proximal traction on extremity.

(c) Grab patient's hand or foot and slide splint over your hand onto the extremity.

(d) Position splint one joint above and below fractured site. If applied to the arm, extend splint beyond the end of the fingers.

(e) Maintain traction proximally and distally while inflating.

(f) Inflate splint to the point at which the finger will make a

slight dent against the splint.

6. Monitor circulation checks and pressure of splint every 30 minutes.

7. Do not take x-rays until after splint is applied.

F. **RESPONSIBILITY:**

Two HMS on treatment team.

G. **REFERENCE:**

Advanced Trauma Life Support Course Manual, American College of Surgeons.

TAB C-2

THOMAS RING LEG TRACTION SPLINT

A. **PURPOSE:** To immobilize the lower extremity to prevent further injury and to control pain.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

Thomas Ring Leg Traction Splint.

D. **CRITERIA:**

1. Assessments of distal pulses, skin color, and temperature will be done prior to and during splinting.

2. Manual traction will be performed during the application of the traction device.

3. Two persons will apply splint.

E. **STEPS:**

1. Obtain Thomas Ring Leg traction splint.

2. Measure the unaffected leg with the traction splint.

(a) Place upper cushioned ring under the buttocks, adjacent to the ischial tuberosity.

(b) Place two support straps above the knee and two below the knee.

3. Dress open wounds.

4. Have one person support the leg while the other removes the shoe and sock to perform a circulatory check.

5. Have one person apply manual traction to the leg, while maintaining support under the fracture, and the calf.

6. Reassess the distal pulse after applying manual traction.

7. Have one person maintain manual traction on the leg, while the other applies the ankle hitch around the patient's ankle and upper foot. Make the bottom strap the same length or shorter than the two upper cross straps.

8. Gently lift the fractured limb while maintaining support and traction. Slide the splint under the affected leg, with the padded upper ring snugly against the ischial tuberosity.

9. Gently lay the leg on the splint and extend the leg elevator. Snugly attach the top strap first.

10. Attach the ankle hitch to the traction hook while supporting the leg.

11. Apply traction gently to the leg by turning the windlass knob until the extremity appears stable, or in the conscious patient, until pain and spasm are relieved.

12. Reassess the distal, pedal pulses.

13. Secure the remaining straps.

14. Continually check circulation to the affected extremity.

F. **RESPONSIBILITY:**

1. Two HMs on treatment team.

2. Medical Officer.

G. **REFERENCE:**

Advanced Trauma Life Support Course Manual, American College of Surgeons.

TAB C-3

PLASTER CASTING INSTRUCTIONS

A. **PURPOSE:** Provide basic guidelines for applying plaster of paris casting materials.

B. **DEFINITION:** Bandage splint made of plaster of paris used to immobilize part of the human anatomy.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Rolls of plaster of paris bandage material.

2. Webril casting padding.

3. Warm water.

D. **CRITERIA:**

Written or verbal orders from the Orthopedic Surgeon or Podiatrist directing the application of a plaster cast as part of the medical or surgical treatment plan.

E. **STEPS:**

1. Assess distal pulses of extremity involved, skin color, and temperature prior to applying cast.

2. Select appropriate sizes and type of casting material needed.

3. Dress open wounds with sterile dressing if needed.

4. Remove all clothing or jewelry on extremity.

5. Apply webril cast padding first. Never leave a wrinkle in the casting padding.

6. Apply the plaster of paris bandage using the following order:

(a) Wet plaster in warm water soak to saturation.

(b) Apply plaster distal to proximal at all times even if mid-extremity.

(c) Apply first layer of plaster material with no high edges or bumps. All tucks must be single thickness. Do not apply too tight.

(d) When applying additional layers, keep the plaster as smooth as possible.

(e) Unless otherwise directed always put the anatomical part in the

position of function.

(1) Wrist..... 5' Palmer flexion.

(2) Knee.....30' Flexion.

(3) Ankle.....90' Neutral position for weight bearing or non-weight bearing.

(4) Body/hip cast...as directed.

7. Let plaster material set well before patient is permitted to ambulate.

8. Always advise patient to check on circulation shortly after cast application for proper circulation, numbness, loss of skin color.

9. Advise patient to keep cast clean and dry at all times if possible.

F. **RESPONSIBILITY**:

Senior Cast Room Technician who will monitor non-rated personnel.

TAB C-4

SHARP ITEM PRECAUTIONS

A. **PURPOSE:** To dispose of used needles and knife blades in a safe manner. To prevent injury and potential risk of contacting hepatitis, syphilis, malaria, aspergillosis, or Aids.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Needle rack.

2. Perforated stainless steel box.

3. Needle holder.

D. **CRITERIA:**

1. Needles are never discarded loose in trash receptacles.

2. Knife blades are always removed from handles before reprocessing is done.

3. Sharp objects must be enclosed and secured so they cannot perforate the receptacle.

E. **STEPS:**

1. Upon completion of surgical case, the Surgical Tech will:

(a) Separate sharp objects from other instruments.

(b) Remove knife blades from handles.

(1) Point the blade toward table away from self.

(2) Remove blades with a needle holder, never use fingers.

(3) Place used blades in a non-penetrable box.

(c) Place reusable surgical needles, either on needle rack or loose, into a perforated stainless steel box.

(d) Dispose of needles in a needle-destruction unit.

2. CSR Decontamination Technician will:

(a) Remove any blades/needles from non-operating room departments in the same manner as the Surgical Technician.

(b) Run reusable needles, placed in a perforated stainless steel box through the washer-sterilizer.

3. CSR Collection HM will:

(a) Collect needle destruction units every other day and empty contents into a firm, self-closing box with padded adhesive tape to secure the opening.

(b) Collect the firm, self-closing boxes located in operating room support space that contain used knife blades.

(c) Take the sealed, labelled contaminated boxes to Environmental Health Department for final disposition.

4. If accidently puncture/cut finger with contaminated needle/knife blade, do the following:

(a) Notify area supervisor.

(b) Report to Specialty Treatment Area for first aid.

(c) Complete an incident report on NAVMED 6010/14 form.

F. **RESPONSIBILITY:**

1. OR Technicians.

2. CSR Technicians.

3. Environmental Health Department.

TAB C-5

HAZARDOUS WASTE

A. **PURPOSE**: To provide guidance for the collection, handling and disposal of hospital generated wastes which have contacted living organisms or may otherwise be considered infectious or hazardous.

B. **DEFINITION**:

1. BACKGROUND: The operation of health care facilities creates waste materials, some of which are hazardous. A subset of hazardous waste is infectious waste; proper handling of infectious waste is mandatory, to prevent spread of infectious diseases. The methods of handling infectious waste, from its generation to its ultimate disposal, must be adhered to strictly by all hands, without exception.

2. RELATIONSHIP WITH HOST NATIONS: It is anticipated that the 250 bed hospital will be operating, in a wartime or conflict mode, on foreign soil. Close liaison with force planners during the pre-deployment planning phase is essential for the hospital command to determine host nation requirements for handling, storage and disposal of infectious hazardous wastes. Whenever possible, agreements and/or contracts with host nations should be secured for the incineration or sanitary burial of wastes in accordance with the host nation's regulations. During peacetime exercises on U.S. soil, adherence to federal, state and local environmental laws and regulations, partially listed in Appendix A, shall be strictly enforced.

3. CATEGORIES OF HOSPITAL GENERATED WASTE: It must be clearly understood that the field hospital will generate four distinct categories of waste. Each type will require special handling procedures from generation to disposal. These categories are:

(a) Infectious waste - generated in patient contact, laboratory, and surgical areas.

(b) Hazardous waste - usually chemical in nature and generated in the laboratory, x-ray, and public works department.

(c) Infectious hazardous waste - generated in the laboratory.

(d) Non-infectious waste - generated in all areas of the hospital.

4. DEFINITIONS:

(a) Infectious waste is defined as waste originating from the diagnosis and treatment of people. There are five (5) broad categories of infectious waste recognized by the Centers for Disease Control (CDC): microbiological, blood and blood products, pathological, sharps, and isolation waste. Examples of each of these types include, but are not necessarily limited to, the following:

(1) Microbiological - wastes generated in laboratories processing bacterial, fungal, mycobacterial, or viral materials, such as media-containing plates, tubes, or diagnostic strips; swabs; glass slides; pipettes. Live virus vaccines (including smallpox, yellow fever, rubella, measles, mumps, polio, and adenovirus) and any of the associated equipment for their use also fall into this classification.

(2) Blood and blood products - wastes generated in the collection processing, and use of blood and blood products; tubes for diagnostic blood collection; items and materials contaminated with blood or blood products that are not designed for cleaning, resterilization, and reuse.

(3) Pathological - pathologic specimens, body tissues, contaminated disposable instruments, and laboratory waste generated in the performance of medical treatment procedures and diagnostic laboratory testing.

(4) Sharps - any diagnostic or therapeutic item possessing a surface capable of piercing human skin, not designed for cleaning, resterilization, and reuse. Examples would include needles for injections, preparation of intravenous medicinals, indwelling cannulae, and diagnostic testing (e.g., lumbar puncture, thoracentesis, paracentesis, etc.); scalpels; and other disposable instruments with a surface capable of piercing human skin.

(5) Isolation waste - wastes generated in the therapy of patients on isolation precautions. Examples would include gowns; gloves; masks; head covers; dressings; disposables basins; paper towels used in isolation rooms; and other such items and materials used in the care of isolation patients that are not designed for cleaning, resterilization, and reuse.

(b) Fomites - an object or item that is not of itself harmful, but may harbor pathogenic microorganisms and serve as a vehicle in the transmission of infections. Examples would include but are not limited to bedding, linen, cloth towels and washrags, diagnostic medical instruments (e.g., stethoscopes, sphygmomanometers, thermometers), and personal items (e.g., razors, toothbrushes, toiletries).

(c) Hazardous waste - any wastes, or combination of wastes, which because of its quantity, concentration, physical or chemical properties may pose a substantial present or potential threat to human health or the environment when improperly treated, stored, transported, disposed of or otherwise managed.

(d) Infectious hazardous waste - any combination of materials and agents that meet the definitions described in 2-4.a. and 2-4.c. above. These wastes will typically be generated in the laboratory when organic pathogens are combined with hazardous chemicals or reagents.

(e) Non-infectious waste - waste generated from non-clinical spaces and waste from patients and their related procedures, where no infection or contagious disease exists.

(f) Storage - the holding of infectious hazardous waste for a temporary period, at the end of which the waste is treated, disposed of, or stored elsewhere.

(g) Treatment - any method, technique, or process designed to change the chemical, physical, or biological characteristics of any infectious hazardous waste so as to render such waste nonhazardous, or less hazardous or safer for transportation, storage or disposal.

(h) Autoclave - an apparatus using steam under pressure for sterilizing medical equipment.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:** N/A.

D. **CRITERIA:** Hazardous waste is properly handled and disposed.

E. **STEPS:**

1. Handling.

(a) Infectious and infectious hazardous waste.

(1) Ward and laboratory personnel shall utilize personal protective clothing and procedures which would normally be practiced in a traditional health care setting for the control of the spread of disease.

(2) Personnel shall wear disposable gloves, gowns, and shoe and hair covers.

(3) Patient contact and laboratory areas will utilize clearly marked, impervious, containers for the disposal of all sharps. When full, the sharps container shall be securely closed with autoclave tape.

(4) Patient areas will utilize clearly marked containers lined with double plastic bags, the outer bag being an orange autoclavable "biological hazard" bag. These containers will be separate from non-infectious "trash" containers. When full, the inner bag will be sealed with autoclave tape. The outer bag will be sealed with filament reinforced tape and autoclave tape.

(b) Hazardous waste.

(1) Protective equipment, as described in DHHS (NIOSH) Publication No. 81-123 (see Appendix A), will be utilized by personnel handling hazardous waste.

(2) All hazardous waste will be containerized. Ideally, in the original container or containers designed for the collection of such wastes such as those provided with automated laboratory equipment.

(3) Containerized and transporting to storage areas will be

accomplished by the waste generator (i.e., lab, x-ray, public works, etc.).

2. Transport and storage.

(a) Infectious waste.

(1) Ward personnel will deliver properly sealed sharps containers and double bagged infectious waste, to the laboratory temporary holding area, on a regularly scheduled basis. Ideally, this area will be one of low traffic and prohibitive to patient care, smoking, eating, and food or medicinal handling.

(2) Ideally, ward personnel will store and transport multiple bags of infectious waste in large, covered containers (i.e., "GI" cans with tight fitting lids). These containers shall be scrubbed with a germicidal solution at least once per shift or more often if grossly contaminated.

(3) Laboratory personnel will handle and routinely autoclave waste under steam pressure for a minimum of fifteen (15) minutes. After proper autoclaving, these wastes may be handled as noninfectious depending on host nation requirements.

(b) Hazardous waste

(1) As noted in paragraphs 3-1 b.2, hazardous waste will be stored in their original containers or those designed for collection of such wastes.

(2) Waste generating personnel will containerize waste according to its chemical grouping such as lubricants, fuels, acids, alkalines, chlorinated hydrocarbons, etc. Containers will be tightly sealed and labeled.

(3) Storage areas will be at least 100 yards from the hospital compound and actual or potential potable water sources. Ideally, these areas will be elevated with natural drainage away from the hospital and water sources. Waste containers should be protected from the elements and the area clearly marked as "Hazardous Waste Storage."

3. Disposal.

(a) General. It must be understood that, in an operational situation, the methods of waste disposal range form ideal to undesirable. The following disposal methods are intended to guide the hospital command towards utilization of the best disposal method for any given situation.

(1) Host Nation Agreement - under the Status of Forces Agreement the cognizant Commander-in-Chief (CINC) will negotiate with the host country for disposal services.

(2) The cognizant CINC will provide disposal services utilizing established logistical support channels within the theater of operations such

as the Supply Battalion of the Force Service Support Group, or supply ships.

(b) Methods. In the absence of the preferred, above mentioned disposal methods, the following may be utilized.

(1) Nonhazardous/noninfectious waste (including properly autoclaved infectious waste).

(a) Burial in a pit as deep as organic equipment will allow and covered with at least two feet of earth. Burial pits should be at least 100 yards from the hospital compound and potable water sources.

(b) Burning by mixing with fuel oil until only ash remains. Ash should then be buried as above. Tactical consideration must be given to open burning as smoke may give away the hospitals location.

(2) Hazardous waste.

(a) Laboratory chemical waste which contains infectious, organic matter, is to be treated as hazardous as autoclaving of liquids in closed containers is not authorized.

(b) Burial in sealed, marked containers, as deep as organic equipment will permit. Burial sites should be lined with plastic sheeting, covered with at least four feet of earth and conspicuously marked. Sites should be at least 100 yards from the hospital compound and potable water sources.

F. **RESPONSIBILITY**:

1. The Commanding Officer is responsible for ensuring the proper management of the overall infectious and hazardous waste program and to interface with the host nation to ensure local regulations are satisfied.

2. Nursing Service via the clinical staff is responsible for the handling of all wastes generated in clinical spaces. This includes ensuring that adequate supplies of hampers, bags, tapes, sharps containers and protective clothing are maintained in these spaces.

3. Laboratory Service is responsible for handling hazardous infectious wastes once it is delivered to or generated by the laboratory. The service is also responsible for proper autoclaving of such wastes to render it free from pathogens.

4. Surgical Service is responsible for handling wastes generated within the operating room giving special attention to surgically removed human tissue.

5. Operating Management is responsible for the removal of waste from the central collection points, including the laboratory, and delivery to the designated pickup area such as the "back loading dock."

6. Public Works Department is responsible for the removal of wastes from the hospital compound and ensuring its proper disposal as outlined in SOP.

TAB C-6

COLD CHEMICAL STERILIZATION

A. **PURPOSE:** Cold sterilization is performed on items that cannot be steam autoclaved. Examples include: face masks, resuscitation bags, anesthesia equipment, and tubes.

B. **DEFINITION:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Five gallon bucket with removable draining basket.

2. Gluteraldehyde 2%.

3. Gloves.

D. **CRITERIA:**

Items are free from pathogens.

E. **STEPS:**

1. Prepare germicidal soaking solution.

2. Disassemble all parts, wash, and rinse thoroughly.

3. Rough dry equipment.

4. Immerse equipment in basket and soak at least 3 hours with optimum of 10 hours.

5. Rinse equipment using copious quantities of sterile water.

6. Allow to air dry.

F. **RESPONSIBILITY:**

CSR Decontamination HM.

G. **PRECAUTIONS:**

1. Avoid eye contact:

(a) In case of contact, flush with water immediately.

(b) Notify CSR supervisor and seek medical attention.

2. Avoid skin contact - skin irritation though infrequent can occur.

(a) Wear gloves to minimize contact.

(b) Rinse affected area thoroughly with water.

3. Potential hazard of toxic vapors from gluteraldehyde in small enclosed areas.

TAB C-7

CARDIAC ARREST PROCEDURE

A. **POLICY:** In the event of sudden cessation of breath, heartbeat, or both, every effort shall be made to re-establish respiratory and/or circulatory function as soon as possible. Cardiopulmonary resuscitation shall be initiated in each incident, unless counter-maned by a Medical Officer or by written order in the patient's record.

B. **PROCEDURE:**

1. After assessment of cardiac or respiratory arrest is made, immediately initiate basic life support.

(a) Verify unresponsiveness.

(b) Call for help.

(c) If unresponsive, open the airway.

(d) Check for breathing.

(e) If not breathing, give 2 full ventilations, 1 to 1/2 seconds each.

(f) Check carotid pulse.

(g) If pulse is absent, start chest compressions, 80-100 per minute.

2. Have second or third person bring emergency equipment to the scene.

(a) Emergency Cardio Resuscitation Kit.

(b) Oxygen cylinder.

(c) Suction machine with all catheters attached.

3. Members of arrest team will:

(a) Perform chest compression (one member).

(b) Manage airway and do ventilations (one member).

(c) Start an IV.

(d) Draw up and administer medications as directed by ACLS certified member or Medical Officer. (one member)

(e) Recorder will document arrest on Cardiac Arrest Flow Sheet. This member will be the same throughout the emergency.

C. **VITAL POINTS:**

1. Basic life support must not be interrupted for more than 5 seconds.

2. Advanced life support is only effective if proper basic life support is initiated and maintained.

3. Complete specific nursing notes showing the exact time events were done.

D. **EDUCATION REQUIREMENTS:**

1. All medical personnel must maintain Basic Cardiac Life Support (BCLS) certification.

2. All Medical Officers and Critical Care Area Nurses should maintain advanced Cardiac Life Support (ACLS) certification.

3. CPR drills will be conducted monthly on all nursing wards in order to assure medical personnel awareness of their role in a code.

E. **RESPONSIBILITY:**

The Medical Officer on treatment team.

TAB C-8

REACTION TO MEDICAL EMERGENCIES

A. **PURPOSE:** To establish the protocol to react to medical emergencies.

B. **DEFINITION:** Medical emergency is a situation causing a life threatening condition that requires immediate medical attention to sustain life.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Equipment.

   (a) Crash cart.

   (b) Litter with blankets.

2. Supplies.

   (a) As provided on crash cart.

   (b) As requested by attending physician.

3. Forms.

   Chronological Record of Patient Care (SF 600).

D. **CRITERIA:**

All equipment properly supplied and functional.

E. **STEPS:**

1. Shock.

   (a) Lay patient down with feet elevated.

   (b) Keep patient warm.

   (c) Notify medical officer.

2. Hemorrhage.

   (a) Apply direct pressure to area.

   (b) Notify medical officer.

3. Pulmonary arrest.

   (a) Establish airway.

   (b) Give mouth-to-mouth.

4. Cardiopulmonary arrest.

(a) Establish airway.

(b) Start CPR.

(c) Notify medical officer.

(d) Call code.

5. Obstructed airway.

(a) Clear mouth.

(b) Four blows back, four ABD thrusts.

(c) Until airway opens.

(d) Notify medical officer.

6. Emergency procedure for adverse reaction to contrast agents.

(a) With hives (urticaria), erythema, itching, or angioedema. Notify attending physician.

(b) With the above and dyspnea (difficulty in breathing).

(1) Call for help immediately.

(2) Apply a tourniquet above the injection site to impede venous and lymphatic flow, but not arterial circulation.

(3) Protect airway, suction as needed.

(4) O^2 high flow (10-15 L/min), by reservoir mask.

(5) Patient should be supine with legs elevated unless respiratory distress predominates.

(c) Assist the physician or nurse with the following:

(1) Start large bore IV with NS TKO.

(2) Epinephrine O.5 mg 1:1000 SQ in opposite arm.

(3) Benadryl 50 mg IV push by physician.

(d) With BP less than 80 and patient critical.

(1) IV NS wide open.

(2) Epinephrine 1:10,000 0.2mg to 0.3 mg may be given very slowly IV push by physician.

(3) Benadryl 50 mg IV push by physician.

(e) Transport to Casualty Receiving as soon as possible for further definitive care.

7. Simple fainting.

(a) Lay patient down.

(b) Keep warm.

(c) Notify medical officer.

TAB C-9

DEFIBRILLATION

A. **PURPOSE:** To terminate ventricular fibrillation immediately, facilitating the establishment of an effective cardiac rhythm. This is the first and only treatment for ventricular fibrillation.

B. **DEFINITION:** Also known as precordial shock, it is the conduction of an electrical impulse into the heart to depolarize cardiac muscle and convert fibrillation rhythm into normal sinus rhythm.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Defibrillator with external paddles.

2. Batteries.

3. ECG monitor with recorder.

4. Conductive medium.

5. Cardio Resuscitation Kit (Sparks Kit).

6. Oxygen therapy equipment.

7. Airways.

8. Endotracheal Anesthesia Set.

9. AMBU bag.

10. Suctioning equipment.

D. **CRITERIA:**

1. Conversion of an abnormal rhythm following a precordial thump or cough has been well demonstrated in patients with ventricular tachycardia and complete heart block. Recently, it has been demonstrated as well for ventricular fibrillation. Because the speed of defibrillation is critical, a solitary precordial thump is recommended for all witnessed cardiac arrests when a defibrillator is unavailable. When a precordial thump is used in patients who have ventricular tachycardia and a pulse, a defibrillator should be available since ventricular fibrillation can be induced. A precordial thump is delivered to the center of the sternum with the hypothenar aspect of the fist and from a height of no more than 12 inches.

2. Defibrillator battery will be charged and ready to use at all times.

3. Person in charge of the arrest will insure all personnel stand clear so that only the patient will receive the electrical current when "ALL CLEAR"

is called.

1. Initiate basic cardiac life support (BCLS) and summon defibrillation equipment and assistance.

2. Verify ventricular fibrillation by ECG. Correlate with the clinical state of patient.

(a) Establish an airway or use existing endotracheal tube if in place.

(b) Perform external cardiac massage until defibrillator is ready. In the OR, internal cardiac massage may be necessary.

(c) When patients are monitored and defibrillation equipment is available, proceed with defibrillation.

3. Prepare to defibrillate.

(a) Obtain battery operated defibrillator.

(b) Check battery level.

(c) Prepare defibrillator paddles by covering entire metal surface with conductive medium. (The conductive medium is needed to reduce skin resistance to current flow, prevent skin burns, and allow for optimal current flow to the myocardium.)

(d) Dial 200 watts/seconds (Joules).

(e) Activate charge button to charge unit with electrical current.

(f) Validate that defibrillator unit is in the non-synchronized mode so machine will fire correctly.

(g) Place paddles firmly into position against chest wall using 25-30 pounds of pressure.

(1) Best position - transverse position.

a Place one paddle at 2nd intercostal space right of sternum.

b Place second paddle at 5th intercostal space mid-clavicular line, left of sternum.

(2) Alternate position - anterior-posterior position.

a Place one paddle at anterior-precordial area.

b Place 2nd paddle at posterior-intrascapular area.

(h) Recheck ECG rhythm on cardioscope to validate Ventricular fibrillation pattern.

(i) Give command to stand clear of bed/litter/OR table prior to defibrillation to minimize risk of micro or macro shock to staff.

4. Defibrillate the patient.

(a) Depress the discharge button while simultaneously keeping both paddles in place until the electrical current is delivered.

(b) Check ECG rhythm on cardioscope for changes in pattern.

(1) If ventricular fibrillation persists, repeat defibrillation immediately.

(2) Continue CPR during any delays in defibrillation.

(3) If a second attempt is unsuccessful, immediately defibrillate with up to 360 Joules.

(4) If the ECG monitor shows an organized rhythm, check for a pulse. Continue CPR if no pulse present.

(5) If unsuccessful, continue with current ACLS protocol.

VENTRICULAR FIBRILLATION [a]

This sequence was developed to assist in teaching how to treat a broad range of patients with ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT). Some patients may require care not specified herein. This algorithm should not be construed as prohibiting such flexibility. The flow of the algorithm presumed that VF is continuing. CPR indicates cardiopulmonary resuscitation.

Witnessed Arrest	Unwitnessed Arrest
Check pulse - If no pulse	Check pulse - If no pulse
Precordial Thump	
Check pulse - If no pulse	
CPR until a defibrillator is available	

Check monitor for rhythm - if VF or VT

Defibrillate, 200 Joules [b]

Defibrillate, 200-300 Joules [b]

Defibrillate with up to 360 Joules [b]

CPR if no pulse

Establish IV access

Epinephrine, 1:10,000, 0.5-1.0 mg IV push [c]

Intubate if possible [d]

Defibrillate with up to 360 Joules [b]

Lidocaine, 1 mg/kg IV push

Defibrillate with up to 360 Joules [b]

Bretylium, 5mg/kg IV push [e]

(Consider Bicarbonate)[f]

Defibrillate with up to 360 Joules [b]

Bretylium, 10 mg/kg IV push [e]

Defibrillate with up to 360 Joules [b]

Repeat Lidocaine or Bretylium

Defibrillate with up to 360 Joules [b]

NOTES:

1. Pulseless ventricular tachycardia should be treated identically to ventricular fibrillation.

2. Check pulse and rhythm after each shock. If VF recurs after transiently converting (rather than persists without ever converting), use whatever energy level has previously been successful for defibrillation.

3. Epinephrine infusion should be repeated every five (5) minutes.

4. Intubation is preferable. If it can be accomplished simultaneously with other techniques, then the earlier the better. However, defibrillation and epinephrine are more important initially if the patient can be ventilated without intubation.

5. Some may prefer repeated doses of lidocaine, which may be given in 0.5 mg/kg douses every 8 minutes to a total dose of 3 mg/kg.

6. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine cardiac arrest sequence. Consideration of its use in a dose of l mEg/kg is appropriate at this point. One half of the original dose may be repeated every 10 minutes if it is used.

SUSTAINED VENTRICULAR TACHYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with sustained ventricular tachycardia (VT). Some patients may require care not specified herein. This algorithm should not be construed as prohibiting such flexibility. The flow of the algorithm presumes that VT is continuing. VF indicates ventricular fibrillation; IV, intravenous.

No Pulse	Pulse Present	
Treat as VF	Stable	Unstable
	O_2	O_2
	IV Access	IV Access
	Lidocaine,	(Consider sedation)[c]

	1 mg/kg	
	Lidocaine, 0.5 mg/kg every 8 min. until VT resolves, or up to 3 mg/kg.	Cardiovert, 50 Joules [d,e] Cardiovert, 100 Joules [d]
	Procainamide, 20 mg/min until VT resolves, or up to 1,000 mg.	Cardiovert, 200 Joules [d] Cardiovert, w with up to 360 Joules [d]
	Cardiovert as in unstable patients [c]	If recurrent, add Lidocaine and cardiovert again starting at energy level previously successful; then procainamide or Bretylium.

NOTES:

1. If the patient becomes unstable (see Footnote b for definition) at any time, move to the "Unstable" arm of the algorithm.

2. Unstable = symptoms (e.g. chest pain, dyspnea), hypotension (systolic BP <90 mm Hg), congestive heart failure, ischemia, or infarction.

3. Sedation should be considered for all patients, including those defined in Footnote b as unstable, except those who are hemodynamically unstable (e.g., hypotensive, in pulmonary edema, or unconscious).

4. If hypotension, pulmonary edema, or unconsciousness is present, unsynchronized cardioversion should be done to avoid the delay associated with synchronization.

5. In the absence of hypotension, pulmonary edema, or unconsciousness, a precordial thump may be employed prior to cardioversion.

6. Once VT has resolved, begin an IV infusion of the antiarrhythmic agent that has aided the resolution of the VT. If hypotensive, in pulmonary edema, or unconscious, use lidocaine if cardioversion alone is unsuccessful, followed by bretylium. In all other patients, the recommended order of therapy is lidocaine, procainamide, and the bretyulium.

ASYSTOLE (CARDIAC STANDSTILL)

This sequence was developed to assist in teaching how to treat a broad range of patients with asystole. Some patients may require care not specified herein. This algorithm should not be construed to prohibit such flexibility. The flow of the algorithm presumes asystole is continuing. CPR indicates cardiopulmonary resuscitation; VF, ventricular fibrillation; IV, intravenous.

If rhythm is unclear and possibly ventricular fibrillation, defibrillate as for VF.
If Asystole is present: [a]

Continue CPR

Establish IV access

Epinephrine, 1:10,000, 0.5-1.0 mg IV push [b]

Intubate when possible [c]

Atropine, 1.0 mg IV push (repeated in 5 min)

(Consider bicarbonate) [d]

Consider pacing

NOTES:

1. Asystole should be confirmed in two leads.

2. Epinephrine should be repeated every 5 minutes.

3. Intubation is preferable; if it can be accomplished simultaneously with other techniques, then the earlier the better. However, CPR and the use of epinephrine are more important initially if the patient can be ventilated

without intubation. (Endotracheal epinephrine may be used.)

4. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine cardiac arrest sequence. Consideration of its use in a dose of 1mEg/kg is appropriate at this point. One half of the original dose may be repeated every 10 minutes if it is used.

ELECTROMECHANICAL DISSOCIATION

This sequence was developed to assist in teaching how to treat a broad range of patients with electromechanical dissociation (EMD). Some patients may require care not specified herein. This algorithm should not be construed to prohibit such flexibility. The flow of the algorithm presumes that EMD is continuing. CPR indicates cardiopulmonary resuscitation; IV, intravenous.

Continue CPR

Establish IV access

Epinephrine, 1:10,000, 0.5-1.0 mg IV push [a]

Intubate when possible [b]

(Consider bicarbonate) [c]

Consider Hypovolemia,
Cardiac Tamponade,
Tension Pneumothorax,
Hypoxemia,
Acidosis,
Pulmonary Embolism

NOTES:

1. Epinephrine infusion should be repeated every 5 minutes.

2. Intubation is preferable. If it can be accomplished simultaneously with other techniques, then the earlier the better. However, epinephrine is more important initially if the patient can be ventilated without intubation.

3. The value of sodium bicarbonate is questionable during cardiac arrest, and it is not recommended for the routine cardiac arrest sequence. Consideration of its use in a dose of 1 mEg/kg is appropriate at this point.

One half of the original dose may be repeated every 10 minutes if it is used.

PAROXYSMAL SUPRAVENTRICULAR TACHYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with sustained PSVT. Some patients may require care not specified herein. This algorithm should be not construed as prohibiting such flexibility. The flow of the algorithm presumes PSVT is continuing.

Unstable	Stable
Synchronous Cardioversion 75 - 100 Joules	Vagal Maneuvers
Synchronous Cardioversion 200 Joules	Verapamil, 5 mg IV
Synchronous Cardioversion 360 Joules	Verapamil, 10 mg IV (in 15-20 min)
Correct underlying abnormalities	Cardioversion, Digoxin B-Blockers, Pacing as indicated
Pharmacological Therapy - Cardioversion	

If conversion occurs but PSVT recurs, repeated electrical cardioversion is not indicated. Sedation should be used as time permits.

BRADYCARDIA

This sequence was developed to assist in teaching how to treat a broad range of patients with bradycardia. Some patients may require care not specified herein. This algorithm should not be construed to prohibit such flexibility. A-V indicates atrioventricular.

Slow Heart Rate (<60 beats/min) [a]

Sinus or	Second Degree	Second Degree	Third Degree

Junctional A-V Block Type I A-V Block Type II A-V Block

Signs or Symptoms [b] Signs or Symptoms [b]

No Yes No

Observe Atropine, 0.5-1.0 mg Transvenous Pacemaker

Continued Signs and Symptoms b

No Yes

For Second Degree Type II or Third Degree: For Second Degree Type I, sinus or junctional: Repeat Atropine, 0.5-1.0 mg.

Continued Signs/Symptoms [b]

Transvenous Pacemaker Observe

Yes

External Pacemaker [c]

or

Isoproterenol, 2-10 mg/min [c]

Transvenous Pacemaker

NOTES:

1. A solitary chest thump or cough may stimulate cardiac electrical activity and result in improved cardiac output and may be used at this point.

2. Hypotension (BP <90 mm Hg), PVCs, altered mental status or symptoms (e.g., chest pain, dyspnea), ischemia, or infarction.

3. Temporizing therapy.

VENTRICULAR ECTOPY:
ACUTE SUPPRESSIVE THERAPY

This sequence was developed to assist in teaching how to treat a broad range of patients with ventricular ectopy. Some patients may require therapy not specified herein. This algorithm should not be construed as prohibiting such flexibility.

Assess for need for
Acute Suppressive Therapy

Rule out treatable cause

Consider serum potassium

Consider digitalis level

Consider bradycardia

Consider drugs

Lidocaine, 1 mg/kg

If not suppressed, repeat lidocaine ,
0.5 mg/kg every 2-5 min. until no ectopy,
or up to 3 mg/kg given

If not suppressed, procainamide 20 mg/min
until no ectopy, or up to 1,000 mg given

If not suppressed, and not contraindicated,
bretylium, 5-10 mg/kg over 8-10 min.

If not suppressed, consider overdrive pacing

Once ectopy resolved, maintain as follows:

After Lidocaine, 1 mg/kg Lidocaine drip, 2 mg/min

After Lidocaine, 1-2 mg/kg	Lidocaine drip, 3 mg/min
After Lidocaine, 203 mg/kg	Lidocaine drip, 4 mg/min
After Procainamide	Procainamide drip, 1-4 mg/min (check blood level)
After Bretylium	Bretylium drip, 2 mg/min

(6) Assess patient status and precipitating factors to prevent further decompensation of the patient.

5. Provide post defibrillation care.

(a) Perform a complete base-line physical assessment of patient. Assess vital signs, peripheral pulses, respiratory pattern, and level of consciousness.

(b) Monitor ECG rhythm watching for arrhythmias.

(c) Obtain a 12 lead ECG to assess myocardial damage.

(d) Administer oxygen to reduce hypoxemic state.

(e) Assess chest wall for any burns. Apply Silver Sulfadiazine to any burned areas.

(f) Establish an IV line for medication administration, if not present.

(g) Administer prescribed medications IAW Physician Orders.

(1) Monitor drips of antidysrhythmic drugs (lidocaine) carefully.

(2) Observe patient and ECG pattern for medication effects.

6. Document defibrillation on Cardiac Arrest Flow Sheet. Record the following:

(a) Ventricular fibrillation was observed on monitor. If available, include pre-defibrillation ECG rhythm strip.

(b) Number of times defibrillation was attempted.

(c) Voltage used with each attempt.

(d) Post-defibrillation ECG rhythm. Include an ECG rhythm strip if available.

(e) Physiological multisystem status.

(f) Death.

F. **PRECAUTIONS:**

1. Check that equipment is properly grounded to prevent current leakage.

2. Disconnect other electrical equipment attached to patient to prevent possible equipment damage from the voltage surge.

3. Use conductive medium on paddles conservatively to prevent over arcing of the current flow to the patient.

4. Clean defibrillator of remaining electrical current immediately after use. Never set charged defibrillator paddles down.

5. Check that defibrillator is in non-synchronized mode such that it is not dependent upon an R wave to trigger defibrillation.

G. **COMPLICATIONS:**

1. Dysrhythmias.

2. Cardiac arrest.

3. Respiratory arrest.

4. Neurological impairment.

5. Altered skin integrity.

6. Pulmonary edema.

7. Pulmonary or systemic emboli.

8. Equipment malfunction.

9. Death.

H. **RESPONSIBILITY:**

1. Medical Officer will defibrillate the patient.

2. Nurse will administer medication, assist with CPR, and record the information in the patient's chart.

3. Hospital Corpsman will inspect and maintain the defibrillator equipment and supplies in working order. Supplies for the Sparks Kit will be obtained from Material Management Department.

I. **REFERENCE:**

1. Interim Guideline for Advanced Cardiac Life Support (ACLS), The American Heart Association.

2. Textbook of Advanced Cardiac Life Support (ACLS), The American Heart Association.

TAB C-10

ROUTINE MEDICATION TIMES

A. **PURPOSE:** To standardize medication administration times so that nursing service and pharmacy can perform this task most efficiently.

B. **SCHEDULE:**

1. Routine times.

(a) qd 0900

(b) bid 0900-2100

(c) tid 0600-1400-2200

(d) qid 0600-1200-1800-2400

(e) q4hr 0200-0600-1000-1400 etc

(f) q6hr 0600-1200-1800-2400

(g) q8hr 0600-1400-2200

(h) q3hr 0300-0600-0900 etc

(i) q12hr 0600-1800

(j) qhs 2200

(k) Daily insulin 0700.

(l) Insulin sliding scale 0700-1100-1600-2100.

2. Special considerations for adjusting times:

(a) Triple IV antibiotics are ordered.

(b) Diuretics are ordered: best to administer before 2200.

(c) Oral antibiotics scheduled for 2400 should be given at 2200 so sleep is not interrupted.

C. **CRITERIA:**

1. Medications will be given at routine times unless adjusted for reason specified.

D. **STEP:**

1. Complete medication cards and MAR sheet with times stated above.

2. For medication times differing from the routine, note this in margin of Doctor's Orders Sheet, SF 508, prior to sending to Pharmacy.

E. **RESPONSIBILITY**:

1. Charge Nurse.

TAB C-12

PROCEDURES FOR RELEASE OF MEDICAL INFORMATION

A. **PURPOSE:** To provide procedures of release of medical information within the hospital.

B. **DEFINITION:** Medical Information - Information contained in the health or dental record of individuals who have undergone medical examination or treatment.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:** N/A.

D. **STEPS:**

1. Upon presentation of requests for medical information refer to procedures contained in the following references:

(a) Manual of the Medical Department, Chapter 23.

(b) Freedom of Information Act, BUMEDINST 5720.8.

(c) Personal Privacy and Rights of Individuals Regarding Records, SECNAVINST 5211.5.

(d) Availability of Navy Records, Policies, SECNAVINST 5720.42.

E. **GENERAL GUIDELINES:**

1. Information contained in health care records of individuals who have undergone medical or dental examination or treatment is personal to the individual and is therefore considered to be of a private and confidential nature. Information from such health care records, the disclosure of which would constitute a clearly unwarranted invasion of personal privacy, should not be made available to anyone except as authorized by the patient or as allowed by the provisions of Manual of the Medical Department Chapter 23 and the Privacy Act of 1974 as implemented by SECNAVINST 5211.5 series.

2. Release of information will be coordinated by the Patient Affairs Officer.

3. Personal information of non-medical nature will not be released.

4. personnel in the patients chain of command may be provided with information required to conduct command business but will be referred to the Patient Affairs Office.

5. Release of information will conform to local command and superior command policy.

6. All Department Heads shall ensure wide dissemination of this

information and compliance with procedures outlined herein.

F. **RESPONSIBILITY:**

1. Director of Administration.

2. Patient Affairs Officer.

3. Charge Nurse or Assistant.

TAB C-13

PROCEDURE FOR PICK-UP AND DELIVERY OF HOSPITAL LAUNDRY

A. **PURPOSE:** It will be logistically impossible to pick up and deliver laundry at each individual ward and CSR. Therefore, this procedure establishes central collection points and the methodology for preparing laundry for turn-in.

B. **DEFINITIONS:** N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Canvas laundry bags.

2. Request for clean linen/laundry.

D. **CRITERIA:** N/A.

E. **STEPS:**

1. Designated Laundry Petty Officer will:

(a) Set up laundry bags, tagging one for bed linen, one for clothing (including patient clothing), and one for contaminated laundry.

(b) Daily at 0800, take the soiled laundry to the nearest Clinical Work Space along with a request for the next day's linen/laundry supply.

(c) Distribute cleaned patient clothing.

2. Linen Control Clerks.

(a) Pick-up and receipt for hospital laundry at each Clinical Work Space.

(b) Collect Requests For Clean Linen/Laundry.

(c) Fill requests submitted the previous day and return cleaned patient clothing.

TAB C-14

PROCEDURE FOR HANDLING AND LAUNDERING CONTAMINATED LINENS

A. **PURPOSE:** The Combat Zone Fleet Hospital will generate a significant amount of contaminated linen within the operating rooms and treatment wards. These items will require special handling and laundering to prevent the spread of infection.

B. **DEFINITION:** Contaminated laundry is defined as those items requiring special disinfection and laundering to preclude the spread of infection.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Chlorine bleach solution.

2. Latex gloves.

D. **CRITERIA:** N/A.

E. **STEPS:**

1. Hospital ward personnel will bag contaminated laundry separate from regular laundry. Gloves are to be worn when handling contaminated laundry.

2. Contaminated laundry will be receipted by the Linen Control Clerks and delivered to the laundry.

3. At the Laundry all contaminated laundry will be segregated from that requiring only routine processing.

4. Based on the next day's requirements and current inventory the contaminated laundry will be assigned a processing priority.

5. The contaminated laundry will be processed as follows:

(a) Presoak the contaminated laundry for 60 minutes in a chlorine solution of 50 ppm.

(b) Wash the linen in hot water using a normal cycle.

6. Once laundered these items will be placed in inventory for re-issue.

F. **RESPONSIBILITY:**

The Head, Environmental Health Department is responsible for routinely monitoring the handling and laundering of contaminated items to preclude the spread of infections.

CAUTION: Extreme care must be taken to avoid contact with the contaminated laundry to prevent the spread of infection to laundry and other hospital personnel.

TAB C-15

PATIENT PROCEDURES FOR HANDLING EXPATRIATED PRISONERS OF WAR

A. **PURPOSE:** To detail patient handling procedures for expatriated prisoners of war within the fleet hospital.

B. **DEFINITION:**

Expatriated prisoners of war (EPW) - those patients who require treatment who are prisoners of U.S. or allied combat forces.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Restraints (theater command military police or hospital issue).

2. Others as specified in admission procedures (all forms will be marked with the words "Prisoner of War" or "EPW").

D. **STEPS:**

1. Upon presentation of EPW to functional area, notify Security Department.

2. Upon admission to Casualty Receiving, Security will be responsible for the following notifications:

(a) Theater command military police (MP) headquarters.

(b) Executive Officer.

(c) Director of Nursing.

(d) Director of Administration.

3. Perform essential life saving care.

4. Inform MP that custody of patient will not be assumed by hospital staff and that MP will retain custody of EPW until relieved by appropriate MP headquarters staff or patient is transferred to EPW holding center (external to hospital).

5. After treatment, have corpsman or litter bearer escort MP and EPW to next functional area charge nurse. Admissions packet, correctly annotated will be delivered by hand to charge nurse.

6. During course of treatment, patient will be guarded by MP and/or restrained until treatment is terminated.

7. Movement to another functional area will be reported to Security.

8. EPW's will be fed either on the ward or in the general mess. If allowed to eat in the general mess, EPW's will be accompanied by MP guards.

E. **RESPONSIBILITY:**

CMAA/Security.

TAB C-16

CASUALTY WITH UNEXPLODED ORDNANCE EMBEDDED

A. **PURPOSE:** To provide guidance in admitting, processing, and treating a casualty who has unexploded ordnance embedded in a body part.

B. **DEFINITION:** An explosive device (most often from a rifle grenade fired at close range) which has not travelled sufficient distance for fuse detonation and explosion, and is embedded in the body of a casualty.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

Sandbags.

D. **CRITERIA:**

1. Sandbags will be stored outside Casualty Receiving Area.

2. Ordnance removed from the casualty's body without detonation.

3. Ordnance removed from the hospital environment without detonation.

4. Ordnance disposed of safely.

E. **STEPS:**

1. Prepare sandbags.

(a) Casualty Receiving Senior Corpsman is responsible for filling bags with sand and storing bags in a sheltered area outside Casualty Receiving.

(b) Prepare sandbags when setting up area.

2. Care of casualty with unexploded ordnance.

(a) Place casualty in area removed from other casualties and personnel.

(1) Keep casualty outside, if possible.

(2) If inside, stack sandbags around the casualty.

(3) Have absolute minimum of personnel near casualty.

(b) Call Security and have them summon an explosive ordnance disposal expert.

(c) Upon determination of what the ordnance is, take additional safety precautions as determined by the attending surgeon in conjunction with the explosive ordnance disposal expert.

(d) Prepare casualty for removal of ordnance as soon as practicable. If in the OR, stack sandbags around the casualty and immediate operating personnel. All other personnel remain outside the perimeter of sandbags.

(e) Tag inpatient record chart to alert other personnel to the presence of unexploded ordnance prior to transfer from initial intake point.

(f) After removal of the unexploded ordnance, give it to the explosive ordnance disposal expert, who will then dispose of the ordnance in a safe and appropriate manner.

F. **RESPONSIBILITY:**

1. Casualty Receiving Senior Corpsman.

2. Admitting clerk.

3. Surgeon.

4. Explosive ordnance disposal expert.

TAB D

CLINICAL POLICIES/GUIDELINES

INDEX

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TAB D-1

ORTHOPEDIC POLICIES

A. General.

1. Closed fractures may be treated with internal fixation where the return to duty is of military necessity and outweighs the risk of complications.

2. Fractures (open or closed) that will not allow return to duty within the evacuation policy will not have open reduction and internal fixation except where stabilization for vascular repairs is absolutely necessary.

3. External fixation will be used in suitable cases in order to stabilize fractures for evacuation. In all open fractures of the extremities and unstable pelvic fractures, either external fixateurs or plaster casting material will be used depending on the preference of the surgeon in charge and availability of plaster and external fixateur in the supply system.

4. The CRG recommends 5 mm diameter pin be used in external fixation. A unilateral fixateur is being developed. It will be made from the least expensive, light weight material consistent with the demand of the clinical standards.

5. In general, the theater operative capacity and capability to save every possible extremity will not be available.

6. There will be no repairs of profundus tendons at the time of initial wound surgery. Reconstruction of major tendon injuries will be performed in CONUS, but superficial tendons will be repaired primarily if the patient can return to duty within the evacuation policy.

7. Stumps of amputated extremities will be left open except in cases of crush injuries that result in a clean wound. All stumps will have redebridement or delayed primary closure on day 4 post initial wound surgery. Parenteral antibiotics will be used on all patients having amputations.

8. All extremity injuries will be immediately and continuously elevated to preclude edema.

B. Distal Extremity Policy. "The object of wound debridement in hand and foot injuries is to clean and remove indrawn debris and to prevent tissue tension which would kill the intrinsic musculature."

1. Hand Injuries:

(a) Hand Injuries have a low priority. They rarely are life threatening.

(b) All rings and watches should be removed from the injured extremity before swelling occurs.

(c) The severely crushed injury should be left open. Delayed primary closure may be accomplished on day 4-5 post initial injury providing no infection is present.

(d) Tourniquets should be placed and inflated for not more than 90 minutes for anatomic orientation and control of severe hemorrhage.

(e) Initial debridement should follow the principles of soft tissue injury in particular the control of hemorrhage. One should:

(1) X-ray in two planes .

(2) Adequately irrigate wounds

(3) Not amputate a digit only debride

(4) Not remove bone attached to soft tissue

(5) Not use Kirschner wires at the time of initial surgery unless stabilization of dislocations and unstable fractures are required and spacing of metacarpal defects is necessary.

(6) Not undermine soft tissue

(f) Split thickness skin grafts can be used in preference to secondary closure in 10 days.

2. Foot Injuries:

(a) X-rays should be obtained in two (2) planes.

(b) In order to adequately debride, extensive exposure is indicated.

(c) Soft tissue should not be undermined in the approach to debridement unless this is required to expose the wound for debridement.

(d) In severely mangled or crushed foot injuries, adequate fascial decompression and debridement of the small muscles must be accomplished from the plantar and dorsal surfaces simultaneously.

(e) Avoid incisions over prominent metatarsal heads.

(f) Incisions in the long axis are desirable except under the metatarsal heads where a transverse incision distal to the ball of the foot will provide the required exposure.

(g) Heel splitting incisions are valuable to debride a severely comminuted and contaminated posterior foot and calcaneus injury.

(h) Do not excise large boney fragments or bone chips which have

soft tissue attached.

(i) Kirschner wires will not be used at the time of initial surgery unless stabilization of dislocations or unstable fractures are required for spacing of the tarsal and metatarsal bones.

(j) Injuries where large bony defects are present should be left open.

(k) If delayed primary closure is desired, this may be accomplished at 4 days on clean wounds. Skin grafting, if necessary, should be considered.

(l) Wounds should be immobilized in a circular bivalved cast.

(m) Remember do not:

(1) Repair nerves in the foot.

(2) Repair tendons primarily.

(3) Repair arteries distal to the ankle.

(4) Use pedicle skin flaps.

C. Fasciotomy Policies. The indications for concomitant fasciotomy are the six:

1. Greater than 6 hour delay between injury and therapy.

2. Prolonged hypotension or shock.

3. Massive swelling, either preoperatively or intraoperatively.

4. Combined major venous and arterial injury.

5. Massive associated soft tissue injury.

6. Treatment of the arterial injury by ligation.

TAB D-2

SURGICAL GUIDELINES

A. Whenever abdominal, thoracic, or contaminated surgery is being conducted, simultaneous specialty (Orthopedic, Neurosurgical, Ophthalmological, or Vascular) will not be performed.

B. Operating microscopes are available at COMMZ only. Microscopes are nonsupportable in combat zone. They will be placed in a special augmentation package for Echelon 4. (If damage occurs, microscopes will be exchanged; no repair will be done in the theater.)

C. All casting materiel is documented in the Casting "G" module using one of the "G" tasks. Time has been documented for the cast tech for casting in the OR as well as for checks of splints, casts, pins, and fixateurs on the wards. This time is 4 minutes once a day.

D. In all open fractures of extremities a combination of external fixateurs and plastered casting material will be used. For modeling purposes, 75% of the patients will have external fixateurs and 25% will receive plaster material.

E. Irrigating Fluids:

1. DEPMEDS recognizes the requirement for adequate amount of irrigating fluids. However, emphasis should be placed on using the minimal amount necessary because of the tremendous impact on the logistical system.

2. There will be 2 liters of normal saline per operative case.

F. Dressings will ordinarily not be changed prior to day 4 post nitial wound debridement at which time the wound will be examined in the OR for further debridement or delayed primary closure. However, a blood soaked dressing, excessive hemorrhage, and/or sepsis may necessitate wound examination and redressing outside the OR. In the data base, all wounds that render the patient non-return to duty within the evacuation policy have a dressing reinforcement in 20% of patients. This category of patients otherwise have dressing reapplied as indicated above in the OR if the stay in theater exceeds 4 days. Further, if the stay exceeded 8 days, another dressing change would be done. For patients returning to duty in the theater, the same policy is in use during initial 4 days and periodic dressing change is accomplished depending on the nature and severity of injury.

G. Blood recovery equipment (or Cell Saver) is available in DEPMEDS at Echelons 3 and 4 and will be used to the maximum extent practical. Anesthesia personnel are responsible to set up and maintain this equipment during operative procedures. Theoretically, this equipment may be used in contaminated and septic cases; however, it is not applied in these cases in the data base. The machine requires a liter of sterile saline with 30,000 units of heparin for primary and an additional liter of saline for each unit of blood recovered. Also, it requires a liter for cleaning. The cleaning of

the equipment is modeled under the anesthesia area but will be performed by an operating room technician. The set-up consumables are found in CSG 12 and cleaning consumables are in CSG 22.

TAB E

STANDARDS AND JOB DESCRIPTIONS

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TAB E-1

EMERGENCY CARDIO RESUSCITATION KIT

A. **PURPOSE**: To provide appropriate supplies/equipment needed during emergency situations.

B. **DEFINITION**: N/A.

C. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED**:

1. Emergency Cardio Resuscitation Kit (Sparks Kit).

2. Emergency Kit Inventory List.

3. Departmental Log.

D. **CRITERIA**:

1. Emergency Cardio Resuscitation Kit is readily accessible.

2. Kit is completely stocked and inventoried when seal is intact.

3. Oxygen cylinders, wrenches, and seals on Emergency Cardio Resuscitation Kit will be checked every watch.

E. **STEPS**:

1. Emergency Cardio Resuscitation Kit will be located in the Casualty Receiving Area at all times. It will be used only for cardio resuscitative emergencies.

2. Senior Corpsman on each watch will check to ensure seals have not been broken, and oxygen pressure in cylinders is sufficient, that psi is not less than 500.

3. Inventory emergency Cardio Resuscitation Kit every three months or when seals have been broken.

4. Check daily the Emergency Kit Inventory List posted on the outside of kit for drug expiration dates.

5. Make appropriate entries in the Departmental Log (TAB G-1).

6. Senior Corpsman will be responsible for re-supplying cart during normal working hours. The Watch LPO assumes this responsibility at other times.

F. **RESPONSIBILITY**:

Senior Corpsman or his representative.

TAB E-2

SPECIALTY TREATMENT AREA CLEANING SCHEDULE

A. **PURPOSE:** To keep the environment as clean as possible.

B. **EQUIPMENT, SUPPLIES, AND FORMS REQUIRED:**

1. Four scrub basins/buckets.

2. Gloves.

3. Wet vacuum.

4. Scrub brushes.

5. Sponge mop.

6. Wipes.

7. Detergent, GP.

8. Germicidal solution.

9. Laundry hamper.

10. Plastic, water soluble laundry bag.

11. Plastic trash bag.

12. Covered container for medical/dental wastes.

C. **CRITERIA:**

1. Soiled linens, trash, and medical wastes are removed at the end of watch and as needed.

2. Decks will be wet-vacuumed daily.

3. Counter tops will be cleaned daily.

4. Temper tent equipment, shelving, litters are cleaned weekly.

5. Refrigerator and ice machine are cleaned weekly.

D. **STEPS:**

1. Watch cleaning schedule.

(a) When patient is transferred, immediately clean the patient area and restock supplies to be ready for next admission.

(b) Check PSI level on each oxygen cylinder. Notify medical supply to replace oxygen cylinder when near 100 psi.

(c) Remove cloth laundry bags when full and place in utility module for laundry to pick up about 1000 daily.

(d) Empty drainage bottles into a covered medical waste container.

(e) Empty trash into plastic bags and dispose of at designated trash area.

(f) Take used sterile instruments to CSR support module for reprocessing.

(g) Wash any surface including deck that may have become contaminated or soiled with blood, etc.

2. Daily cleaning schedule.

(a) Wash decks with wet-vacuum on night watch.

(b) Wipe down counter tops on night watch.

(c) Restock supplies on night watch.

3. Weekly cleaning schedule.

(a) Wipe down litter racks, storage cabinets, shelving and deck tops.

(b) Clean the refrigerator and ice machine.

E. **RESPONSIBILITY:**

Senior corpsman or LPO will assign cleaning details to watch.

TAB E-3.1

JOB DESCRIPTION

HEAD, ORTHOPEDICS DEPARTMENT

The Head, orthopedics Department is responsible to the Chief of Surgical Services for all Orthopedic care, management, and issues within the Fleet Hospital.

THE HEAD ORTHOPEDICS DEPARTMENT WILL:

1. Establish policies and procedures for orthopedic care provided by the hospital.

2. Perform orthopedic evaluation and treatment procedures.

3. Perform orthopedic surgical procedures.

4. Ensure completion of Short Form History and Physical (SF 539) for each and all orthopedic admissions within 24 hours of admission.

5. Assign a primary diagnosis for orthopedic disorders.

6. Formulate treatment plans to be implemented by other health care providers.

7. Document patient progress and treatment on Progress Notes not less frequently than every 48 hours.

8. Make daily rounds on orthopedic patients beginning at 0900 to evaluate compliance with established treatment plans.

9. Be on call to the Specialty Treatment Unit for orthopedic and podiatry admissions.

10. Monitor orthopedic care rendered by orthopedic, podiatry, and nursing staff.

11. Oversee orientation and training programs.

12. Provide in-service training to other hospital staff regarding the practice of combat orthopedics and orthopedic protocols.

13. Consult with the medical staff regarding orthopedic problems.

14. Approve all communications both within and external to the department.

15. Approve all performance evaluations prepared for assigned personnel.

16. Prepare and submit required reports in final form.

QUALIFICATIONS:

1. Designator 2100/2105 Physician.

2. Board certified Orthopedist.

3. Fully credentialed.

4. Advanced Cardiac Life Support (ACLS) certified.

5. Advanced Trauma Life Support (ATLS) certification recommended.

6. Intermediate leadership, management and training certification recommended.

7. Fleet Hospital Operations Course graduate.

TAB E-3.2

JOB DESCRIPTION

ORTHOPEDIC SURGEON

The Orthopedic Surgeon will assist the department head in providing orthopedic care and treatment to patients requiring same within the Fleet Hospital.

THE ORTHOPEDIC SURGEON WILL:

1. Perform orthopedic evaluation and treatment procedures.

2. Perform orthopedic surgical procedures.

3. Ensure completion of Short Form History and Physical (SF 539) for each and all orthopedic admissions within 24 hours of admission.

4. Assign a primary diagnosis for orthopedic disorders.

5. Formulate treatment plans to be implemented by other health care providers.

6. Document patient progress and treatment on Progress Notes not less frequently than every 48 hours.

7. Make daily rounds on orthopedic patients to evaluate compliance with established treatment plans.

8. Be on call to the Specialty Treatment Unit for opthopedic and podiatry admissions.

9. Monitor orthopedic care rendered by orthopedic, podiatry, and nursing staff.

10. Stand orthopedics watches as assigned.

11. Participate in orientation and training programs.

12. Provide in-service training to other hospital staff regarding the practice of combat orthopedics and orthopedic protocols.

13. Consult with the medical staff regarding orthopedic problems.

14. Serve as acting department head as required.

QUALIFICATIONS:

1. Designator 2100/2105 Physician.

2. Board certified Orthopedist.

3. Fully credentialed.

4. Advanced Cardiac Life Support (ACLS) certified.

5. Advanced Trauma Life Support (ATLS) certification recommended.

6. Fleet Hospital Operations Course graduate.

TAB E-3.3

JOB DESCRIPTION

PODIATRIC SURGEON/PODIATRIST

The Podiatric Surgeon will assist the department head in providing podiatric care and treatment to patients requiring same within the Fleet Hospital.

THE PODIATRIC SURGEON/PODIATRIST WILL:

1. Perform podiatric evaluation and treatment procedures.

2. Perform podiatric surgical procedures.

3. Ensure completion of Short Form History and Physical (SF 539) for each and all podiatric admissions within 24 hours of admission.

4. Assign a primary diagnosis for podiatric disorders.

5. Formulate treatment plans to be implemented by other health care providers.

6. Document patient progress and treatment on Progress Notes not less frequently than every 48 hours.

7. Make daily rounds on podiatric patients to evaluate compliance with established treatment plans.

8. Be on call to the Specialty Treatment Unit for podiatry admissions.

9. Monitor podiatric care rendered by nursing staff.

10. Stand orthopedics watches as assigned.

11. Participate in orientation and training programs.

12. Provide in-service training to other hospital staff regarding the practice of combat podiatrics and podiatric protocols.

13. Consult with the medical staff regarding podiatric problems.

14. Serve as acting department head as required.

QUALIFICATIONS:

1. Designator 2300/2305.

2. Board eligible or certified Podiatrist.

3. Fully credentialed.

4. Advanced Cardiac Life Support (ACLS) certified.

5. Advanced Trauma Life Support (ATLS) attendance recommended.

6. Fleet Hospital Operations Course graduate.

TAB E-3.4

JOB DESCRIPTION

SENIOR ORTHOPEDIC TECHNICIAN/CAST ROOM TECHNICIAN

THE SENIOR ORTHOPEDIC TECHNICIAN/CAST ROOM TECHNICIAN WILL:

1. Assist the Orthopedic Surgeon and Podiatrist in performing orthopedic and/or podiatric procedures.

2. Serve as scrub technician in both minor and main ORs. As such, the tech will:

(a) Check room for necessary gear, i.e., suction, bovine, prep supplies.

(b) Check all sterile gear required by case for expiration dates, damaged packaging, lot numbers, and completeness.

(c) Open all sterile gear correctly and maintain a sterile field.

(d) Assemble any additional gear and flash sterilize PRN.

(e) Set up own gown and gloves.

(f) Perform surgical scrub as required by procedure.

(g) Gown and glove using aseptic technique.

(h) Assemble instrument sets, drapes, and surgeon's gown and gloves, maintaining sterility throughout.

(i) Receive sterile/flashed supplies from circulator.

(j) Assist surgeon with gowning and gloving.

(k) Assist surgeon with draping and passing off suction and Bovine.

(l) Assist surgeon with procedure (by passing correct instruments, sutures, assisting with suctioning, retraction, and patient comfort).

(m) Monitor surgeon's sterile technique.

(n) Pass off specimens and identify same upon passing them off, including name of specimen.

(o) Receive dressing supplies from circulator.

(p) Pass appropriate dressing supplies to surgeon and assist with dressing as needed.

(q) Break down sterile gear and clean instruments used for procedure,

separating augmentation gear form gear contained in the basic instrument set.

(r) Clean all instruments.

(s) Assist circulating technician in cleaning room and setting up for subsequent case(s).

(t) Display local anesthetic containers to surgeon to verify anestric agent administered.

(u) Log all surgical procedures.

3. Demonstrate proficiency in dealing with medical emergencies. Specifically, the Orthopedic tech will:

(a) Follow cardiac arrest procedures set forth in TAB C-7.

(b) Provide first aid and life saving measures IAW TAB C-8.

(c) Assist in defibrillation procedures IAW TAB C-9.

4. Maintain all departmental materiel in good working condition.

5. Monitor the safety and function of all equipment and submit corrective maintenance requests as required.

6. Track progress of required repairs, maintenance and/or resupply.

7. Monitor and maintain adequate levels of administrative and clinical supplies.

8. Ensure proper disposition of contaminated instruments, equipment, and other material.

9. Assist less experienced staff in rendering appropriate care.

10. Maintain good interpersonal relationships with other hospital departments and staff members.

11. Maintain liaison with Specialty Treatment Unit administrators to coordinate orthopedic requirements with other scheduled events.

12. Ensure that departmental logs are maintained IAW provided guidance.

13. Maintain departmental files.

14. Test emergency equipment at the beginning of each assigned watch.

15. Ensure that adequate sanitation standards are maintained in all areas assigned to the Orthopedics Division.

16. Perform other duties as assigned.

QUALIFICATIONS:

1. "A" School graduate.
2. NEC 8489.
3. BCLS certified.
4. Fleet Hospital Operations Course graduate.

TAB E-3.5

JOB DESCRIPTION

ORTHOPEDIC TECHNICIAN/CAST ROOM TECHNICIAN

THE ORTHOPEDIC TECHNICIAN/CAST ROOM TECHNICIAN WILL:

1. Assist the Orthopedic Surgeon and Podiatrist in performing orthopedic and/or podiatric procedures.

2. Maintain all departmental materiel in good working condition.

3. Apply and remove casting material and splints.

4. Ensure proper disposition of contaminated instruments, equipment, and other material.

5. Maintain good interpersonal relationships with other hospital departments and staff members.

6. Ensure that departmental logs are maintained IAW provided guidance.

7. Test emergency equipment at the beginning of each assigned watch.

8. Ensure that adequate sanitation standards are maintained in all areas assigned to the Orthopedics Division.

9. Serve as scrub technician in both minor and main ORs. As such, the tech will:

(a) Check room for necessary gear, i.e., suction, bovine, prep supplies.

(b) Check all sterile gear required by case for expiration dates, damaged packaging, lot numbers, and completeness.

(c) Open all sterile gear correctly and maintain a sterile field.

(d) Assemble any additional gear and flash sterilize PRN.

(e) Set up own gown and gloves.

(f) Perform surgical scrub as required by procedure.

(g) Gown and glove using aseptic technique.

(h) Assemble instrument sets, drapes, and surgeon's gown and gloves, maintaining sterility throughout.

(i) Receive sterile/flashed supplies from circulator.

(j) Assist surgeon with gowning and gloving.

(k) Assist surgeon with draping and passing off suction and Bovine.

(l) Assist surgeon with procedure (by passing correct instruments, sutures, assisting with suctioning, retraction, and patient comfort.

(m) Monitor surgeon's sterile technique.

(n) Pass off specimens and identify same upon passing them off, including name of specimen.

(1) Receive dressing supplies from circulator.

(2) Pass appropriate dressing supplies to surgeon and assist with dressing as needed.

(3) Break down sterile gear and clean instruments used for procedure, separating augmentation gear form gear contained in the basic instrument set.

(4) Clean all instruments.

(5) Assist circulating technician in cleaning room and setting up for subsequent case(s).

(6) Display local anesthetic containers to surgeon to verify anestric agent administered.

(7) Log all surgical procedures.

10. Demonstrat proficiency in dealing with medical emergencies. Specifically, the Orthopedic tech will:

(a) Follow cardiac arrest procedures set forth in TAB C-7.

(b) Provide first aid and life saving measures IAW TAB C-8.

(c) Assist in defibrillation procedures IAW TAB C-9.

11. Perform other duties as assigned.

QUALIFICATIONS

1. "A" School graduate.

2. NEC 8489.

3. BCLS certified.

4. Fleet Hospital Operations Course graduate.

TAB F

REFERENCES

INDEX

NUMBER	REFERENCE NUMBER	TITLE
F-1		Advanced Cardiac Life Support (ACLS) Interim Guidelines, The American Heart Association.
F-2		Advanced Trauma Life Support Course Manual, American College of Surgeons.

TAB G

FORMS

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TAB G-1

DEPARTMENTAL LOG FORMAT

FHCZ 2201

LEFT FACING PAGE

DATE	TIME ARRIVED	REGISTER NUMBER	NAME (LAST, FIRST, MI)	SSN	COMMAND

TAB G-1

DEPARTMENTAL LOG FORMAT

FHCZ 2201

RIGHT FACING PAGE

DIAGNOSIS	PROCEDURE DONE	DISPOSITION	TIME DEPARTED

TAB G-2

CAST ROOM WORKSHEET

Date: _____

Doctor Name: _____

Tech Name: _____

Name Stamp Plate

_____ Cast Removal Only

_____ Cast Removal and X-ray

_____ Plaster

_____ Cutter Cast

_____ Short Arm

_____ Thumb Spica

_____ Long Arm

_____ Long Arm Thumb Spica

_____ Short Leg Walker

_____ Short Leg Non-Weight Bearing

_____ Long Leg Walker

_____ Long Leg Non-Weight Bearing

_____ Cylinder

_____ Knee Hinge

_____ PTB

_____ 1 - 1/2 Hip Spica

_____ Double Hip Spica

_____ Risser Jacket

_____ Dressing Change

_____ Don Joy Brace

_____ Rom Brace

_____ Pavlik Harness

_____ Postop Shoe

_____ Posterior Splint

_____ Volar Splint

_____ Ulnar Gutter Splint

_____ Radial Gutter Splint

_____ Sugar Tongs

_____ Jones Dressing

_____ Finger Splint

_____ Knee Immobilizer

_____ Cervical Collar

_____ Clavicle Strap

_____ Sling

_____ Cast Shoe

_____ Ace Wrap

_____ L-S Support

_____ Tennis Elbow Splint

_____ Gauntlet Cast

SPECIAL INSTRUCTIONS: